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Remarks

Claims 74, 99 and 100 have been amended. New claims 101-105 have been added. Claim 74 has been amended for clarity and not for reasons related to patentability. Claims 99 and 100 have been amended to correct clerical errors and not for reasons related to patentability. Support for new claims 101-105 can be found in general throughout the Applicants' Specification and in particular, for example, as follows: claims 101-105, page 1, lines 17-18 and page 14, lines 26-37.

Claim 6 stands rejected under 35 U.S.C. § 102(b) over Sargent, U.S. Patent No. 3,595,237.

Sargent discloses an apparatus for applying a strip of hot melt pressure sensitive adhesive to a sanitary napkin.

Claim 6 is directed to a method of coating wherein a hot melt adhesive, which has been thermally made flowable, is provided in the form of a substantially continuous nonporous film without contact of the film with a substrate, and the film is then disposed upon a release-coated substrate comprising a web and is then transfer-coated onto a second substrate. Under 35 U.S.C. § 102(b), the subject matter of a claim is anticipated if each and every element set forth in the claim is found in the a single prior art reference. Verdegaal Bros., Inc., v. Union Oil Co., 814 F.2d 628, 631 (Fed. Cir. 1987). If the reference fails to teach even one limitation of the claimed invention, then the claim is not anticipated under § 102(b). Atlas Powder Co. v. E.I. du Pont De Nemours & Co., 750 F.2d 1569, 1574 (Fed. Cir. 1984). Sargent does not teach providing a hot melt adhesive in the form of a substantially continuous nonporous film without contact between of the film with a substrate. Rather, Sargent discloses applying a strip of adhesive to a substrate. Sargent describes this strip of adhesive as being applied in any desired pattern including intermittent or continuous. Sargent further illustrates this strip of adhesive in Figures 2-6. Sargent does not teach that his strip of adhesive is a film. When Sargent means to refer to a film, Sargent uses that term as demonstrated by the repeated reference to a "barrier film" throughout the Sargent patent (see, e.g., col. 3, line 12). The fact that Sargent referred to the barrier film as a film demonstrates that Sargent understood the difference between a strip and a film, that Sargent distinguished the nature of the strip

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adhesive from that of a film, and that Sargent meant a strip of adhesive and not a film of adhesive. Sargent thus fails to teach a required element of claim 6. Accordingly, the rejection of claim 6 under 35 U.S.C. § 102(b) over Sargent cannot stand and must be withdrawn.

Claims 42 and 43 stand rejected under 35 U.S.C. § 103 over Werenicz et al. (WO 96/25902) in view of Smith et al. (U.S. 3,402,086).

Werenicz et al. disclose a noncontact coating method for coating a thermoplastic composition in the form of a film.

Smith et al. disclose a hot melt extrusion coating process that includes extruding particular random copolymers of ethylene and acrylic acid at a temperature of about 105°C to about 250°C in the form of a thin film that is deposited on a metallic or nonmetallic substrate that has been heated to a temperature of about 80°C to about 250°C before, after or both before and after, the ethylene copolymer is applied to the substrate.

Claim 42 is directed to a method of coating a substrate where the method includes releasing a hot melt adhesive that has been thermally made flowable from a coating device in the form of a substantially continuous film without contact between the coating device and a substrate, and contacting the surface of a substrate comprising a substantially nonporous moving web with the continuous film to form a coated substrate having a continuous coating having an area weight less than about 30 g/m<sup>2</sup>, the coated substrate being essentially free of entrapped air between the coating and the substrate. The present inventors have discovered that coating a continuous thin film of a hot melt adhesive composition on a nonporous substrate without contact between the substrate and the continuous film entraps air between the continuous film and the nonporous substrate. To establish a prima facie case of obviousness based upon a proposed combination of references there must be a teaching, suggestion or motivation in the prior art for making the proposed combination. See M.P.E.P. 2142; Fromson v. Anitec Printing Plates, Inc., 132 F.3d 1437 (Fed. Cir. 1997); C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352, (Fed. Cir. 1998). Here there is no such teaching, suggestion or motivation. Neither Werenicz et al. nor Smith et al. teach or suggest that coating a continuous thin film of a hot melt adhesive composition on a nonporous substrate without contact between the substrate and the continuous film entraps air between the continuous film and the

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nonporous substrate. Moreover, neither Werenicz et al. nor Smith et al. teach or suggest the desirability of producing a coated substrate that is essentially free of entrapped air between the coating and the substrate. Therefore, the skilled artisan would have no reason to modify the method of Werenicz et al. so as to achieve the method of claim 42 — let alone so as to produce a coated substrate that is essentially free of entrapped air.

The proposed combination of Werenicz et al. and Smith et al. is further deficient for at least the following additional reasons. Smith et al. disclose that it is the particular class of ethylene copolymers described therein that can be successfully coated according to the Smith et al. method. The ethylene copolymers of Smith et al. are not hot melt adhesive compositions and the method of Smith et al. does not include coating a hot melt adhesive. Therefore, the skilled artisan would have no reason to coat a hot melt adhesive on a nonporous substrate using the method of Werenicz et al. Accordingly, a prima facie case of obviousness has not been established. Applicants submit, therefore, that the rejection of claim 42 under 35 U.S.C. § 103 over Werenicz et al. in view of Smith et al. is unwarranted and must be withdrawn.

Claim 43 is patentable under 35 U.S.C. § 103 over Werenicz et al. for at least the same reasons set forth above in distinguishing claim 42.

Claim 48 stands rejected under 35 U.S.C. § 103 over Werenicz et al. in view of Smith et al.

Claim 48 is directed to a method of coating that includes releasing a hot melt adhesive, which has been thermally made flowable, from a coating device onto a substantially nonporous substrate as a substantially continuous coating without contact between the coating device and the substrate, subsequently disposing the substantially continuous coating upon the surface of the substrate at a coating weight of less than about 10 g/m<sup>2</sup>, nipping the coated substrate between a first roller and a second roller, and contacting the coating of the nipped substrate with a second substrate. To establish a prima facie case of obviousness based upon a proposed combination of references, the proposed combination there must be some teaching, suggestion or motivation in the prior art for making the combination. See M.P.E.P. 2142; Fromson v. Anitec Printing Plates, Inc., 132 F.3d 1437 (Fed. Cir. 1997); C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352, (Fed. Cir. 1998). Here there is no such teaching, suggestion or motivation. Claim

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48 expressly recites, "nipping the coated substrate between a first roller and a second roller, and contacting the coating of the nipped substrate with a second substrate" (emphasis added). In other words, the coated substrate of claim 48 is nipped prior to contact with a second substrate. Werenicz et al. do not teach nipping a coated substrate prior to contacting the nipped substrate with a second substrate. Rather, the second substrate of Werenicz et al. is applied to a coated substrate prior to a nip roller.

It is undisputed that Smith et al. fail to teach "nipping the coated substrate between a first roller and a second roller, and contacting the coating of the nipped substrate with a second substrate." Thus, the proposed combination of Werenicz et al. and Smith et al. lacks a required element of claim 48. Accordingly, the rejection of claim 48 under 35 U.S.C. § 103 over Werenicz et al. in view of Smith et al. cannot stand and Applicants request that it be withdrawn. Should this rejection be maintained, Applicants respectfully request that support for the rejection be provided by reference to column and line number in the supporting reference.

Claim 63 stands rejected under 35 U.S.C. § 103 over Werenicz et al. in view of Smith et al. (U.S. 3,402,086) and Sargent et al.

The discussion of the disclosures of Werenicz and Sargent et al. and Smith et al. set forth above are incorporated herein.

Claim 63 is directed to a method of coating wherein a thermoplastic material, which has been thermally made flowable, is provided in the form of a substantially continuous nonporous film without contact of the film with a substrate. The film is then coated onto a nonporous substrate, the coating having a complex viscosity of less than about 500 poise at about 1000 radians/sec at the coating temperature and the continuous film is transferred from the first (i.e., nonporous) substrate to a second substrate. To establish a prima facie case of obviousness based upon a proposed combination of references there must be a teaching, suggestion or motivation in the prior art for making the proposed combination. See M.P.E.P. 2142; Fromson v. Anitec Printing Plates, Inc., 132 F.3d 1437 (Fed. Cir. 1997); C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352, (Fed. Cir. 1998). Here there is no such teaching, suggestion or motivation. It is undisputed that neither Werenicz et al. nor Smith et al. teach or suggest transferring a continuous film from a first nonporous substrate to a second substrate.

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Sargent fails to cure the deficiencies of Werenicz et al. and Smith et al. Notwithstanding the statements in the Office action to the contrary, Sargent does not teach providing a substantially nonporous film without contact of the film with a substrate. Rather, Sargent discloses applying a strip of adhesive to a substrate. Sargent describes this strip of adhesive as being applied in any desired pattern including intermittent or continuous. Sargent further illustrates this strip of adhesive in Figures 2-6. Sargent does not teach that his strip of adhesive is a film. The fact that Sargent referred to the barrier film as a film demonstrates that Sargent understood the difference between a strip and a film, that Sargent distinguished the nature of the strip adhesive from that of a film, and that Sargent meant a strip of adhesive and not a film of adhesive. Thus, Sargent does not teach a noncontact coating method for applying a continuous film. Accordingly the skilled artisan would find Sargent to have no bearing on the method of Werenicz et al.

The proposed combination is further deficient for at least the following additional reasons. Sargent discloses:

[D]irect application of hot melt adhesives to the [thermoplastic barrier] film surface caused the areas where the thermoplastic, pressure-sensitive adhesives were applied to soften or melt thereby disturbing the integrity of the film to which they were applied. This distortion of the thermoplastic barrier films resulted in the formation of perforations and unsightly ripples and wrinkles thus rendering the protective liners incapable of performing their intended function.

(Sargent, col. 2, lines 1-14). Sargent further discloses that his method "causes the thermoplastic, pressure-sensitive adhesives to be fused to the thermoplastic barrier film without causing the barrier film to become physically distorted or perforated in the area coated by the thermoplastic pressure sensitive adhesive" (Sargent col. 2, lines 45-48). The Werenicz et al. method already provides a solution to the problem of the hot melt adhesive being too hot to apply to a thermally sensitive substrate. Therefore, the skilled artisan would have no reason to modify the method of Werenicz et al. in light of Sargent, and further would have no reason to transfer the hot melt adhesive of Werenicz et al. to a second substrate because doing so would unnecessarily add steps to the process of Werenicz et al. without providing any disclosed benefit. Thus, the criteria for establishing a prima facie case of obviousness have not been met. Applicants submit,

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therefore, that the rejection of claim 63 under 35 U.S.C. § 103 over Werenicz et al. in view of Smith et al. and further in view of Sargent et al. is unwarranted and request that it be withdrawn.

Claim 66 stands rejected under 35 U.S.C. § 103 over Werenicz et al. in view of Smith et al.

The discussion of the disclosures of Werenicz et al. and Smith et al. set forth above are incorporated herein.

Claim 66 is directed to a method of coating, wherein a thermoplastic material, which has been thermally made flowable, is provided in the form of a substantially continuous nonporous film without contact of the film with a substrate and the film is then coated onto a nonporous substrate, the coating having a complex viscosity of less than about 500 poise at about 1000 radians/sec at the coating temperature, the method further including nipping the coated substrate and contacting the coating of the nipped substrate with a second substrate. To establish a prima facie case of obviousness based upon a proposed combination of references the proposed combination there must be some teaching, suggestion or motivation in the prior art for making the combination. See M.P.E.P. 2142; Fromson v. Anitec Printing Plates, Inc., 132 F.3d 1437 (Fed. Cir. 1997); C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352, (Fed. Cir. 1998). Here no such teaching, suggestion or motivation can be found. Claim 66 expressly recites, "nipping the coated substrate, and contacting the coating of the nipped substrate with a second substrate" (emphasis added). In other words, the coated substrate of claim 66 is nipped prior to contact with a second substrate. Werenicz et al. do not teach nipping a coated substrate prior to contacting the nipped substrate with a second substrate.

Smith et al. do not cure the deficiencies of Werenicz et al. It is undisputed that Smith et al. fail to teach contacting a coating of a nipped substrate with a second substrate. Thus, the proposed combination of Werenicz et al. and Smith et al. lacks a required element of claim 66. Accordingly, a prima facie case of obviousness has not been made. Applicants submit, therefore, that the rejection of claim 66 under 35 U.S.C. § 103 over Werenicz et al. in view of Smith et al. cannot stand and request that it be withdrawn.

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Claim 74 stands rejected under 35 U.S.C. § 103 over Werenicz et al. in view of Smith et al.

The discussion of the disclosures of Werenicz et al. and Smith et al. set forth above are incorporated herein.

Claim 74 is directed to a method of coating that includes releasing a hot melt adhesive composition that has been thermally made flowable from a coating device in the form of a continuous film without contact between the coating device and a substrate, the hot melt adhesive composition including thermoplastic polymer and tackifying resin, and simultaneously contacting a substantially nonporous substrate with the continuous film and nipping the continuous film and the substrate between a first roller and a second roller. To establish a prima facie case of obviousness based upon a proposed combination of references there must be a teaching, suggestion or motivation in the prior art for making the proposed combination. See M.P.E.P. 2142; Fromson v. Anitec Printing Plates, Inc., 132 F.3d 1437 (Fed. Cir. 1997); C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352, (Fed. Cir. 1998). Werenicz et al. do not teach "simultaneously contacting a substantially nonporous substrate with the continuous film and nipping the continuous film and the substrate between a first roller and a second roller" as required by claim 74. Rather, Werenicz et al. disclose, "Substrate 2(4) is optionally adhered to the coating surface by means of a nip roll."

As demonstrated above, Smith et al. do not teach coating a hot melt adhesive on a nonporous substrate. Thus, two premises on which the rejection of claim 74 is based are not sound. Therefore a prima facie case of obviousness has not been made. Accordingly, the rejection of claim 74 under 35 U.S.C. § 103 over Werenicz et al. in view of Smith et al. cannot stand and Applicants request that it be withdrawn.

Claims 88-90 stand rejected under 35 U.S.C. § 103 over Bayer, Jr. et al. (U.S. 5,747,107) in view of Werenicz et al.

Bayer et al. disclose a method of applying a hot melt polymer on a substrate that includes extruding a composition from a die to form a strip of adhesive.

Claim 88 is directed to a method of coating that includes releasing a hot melt adhesive composition that has been thermally made flowable from a coating device in the form of a continuous film without contact between the coating device and a substrate, the

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hot melt adhesive composition including thermoplastic polymer and tackifying resin, contacting a first roller with the continuous film, and transferring the continuous film from the first roller to a substrate. Bayer et al. disclose coating either neat polyolefins or hot melt pressure sensitive adhesives. Each of the adhesives disclosed in Bayer et al., whether expressly or by reference, are crosslinkable pressure sensitive adhesives.

To establish a prima facie case of obviousness based upon a proposed combination of references the proposed combination there must be some teaching, suggestion or motivation in the prior art for making the combination. See M.P.E.P. 2142; Fromson v. Anitec Printing Plates, Inc., 132 F.3d 1437 (Fed. Cir. 1997); C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352, (Fed. Cir. 1998). In addition, the prior art must provide the skilled artisan with a reasonable expectation of success. Micro Chem., Inc. v. Great Plains Chem. Co., 103 F.3d 1538, 1547 (Fed. Cir. 1997); In re O'Farrell, 853 F.2d 894, 903 (Fed. Cir. 1988). Here no such teaching, suggestion or reasonable expectation of success can be found. The coating method of Werenicz et al. is nothing like the method of Bayer et al. Werenicz et al. describe coating their hot melt adhesive compositions onto porous substrates, whereas Bayer et al. describe coating polymeric materials onto a roller. Werenicz et al. do not teach or suggest that their hot melt adhesive compositions that include a thermoplastic polymer and a tackifying resin are anything like the crosslinkable pressure sensitive adhesives of Bayer et al. Werenicz et al. also do not teach or suggest that their hot melt adhesive compositions could be successfully coated onto a roller as a continuous film. Accordingly, the skilled artisan would have no reason to use the hot melt adhesive of Werenicz et al. in the method of Bayer et al. and further would have no reasonable expectation that the Werenicz et al. thermoplastic hot melt adhesive compositions that include a thermoplastic polymer and a tackifying resin could be successfully released from the die of Bayer et al. as a continuous film or successfully transferred from a roller to a substrate as a continuous film. Accordingly, Applicants submit that the rejection of claim 88 under 35 U.S.C. § 103 over Bayer et al. in view of Werenicz et al. is unwarranted and must be withdrawn.

Claims 89 and 90 depend from claim 88 and are distinguishable over the proposed combination of Bayer et al. and Werenicz et al. for at least the same reasons set forth above in distinguishing claim 88. Applicants request, therefore, that the rejection of



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claims 89 and 90 under 35 U.S.C. § 103 over Bayer et al. in view of Werenicz et al. be withdrawn.

Claims 91-100 stand rejected under 35 U.S.C. § 103 over Bayer, Jr. et al. in view of Werenicz et al. and further in view of Mainstone, "Extrusion coating & Laminating."

The rejection of claims 91-100 is based on the above-refuted premise that the proposed combination of Bayer et al. and Werenicz et al. teach or suggest releasing a hot melt adhesive composition that has been thermally made flowable from a coating device in the form of a continuous film without contact between the coating device and a substrate, the hot melt adhesive composition including thermoplastic polymer and tackifying resin, contacting a first roller with the continuous film, and transferring the continuous film from the first roller to a substrate. Since this premise is not sound, Applicants submit that the rejection claims 91-100 under 35 U.S.C. § 103 over Bayer, Jr. et al. in view of Werenicz et al. and further in view of Mainstone cannot stand for at least the same reasons set forth above in distinguishing claim 88 and request that it be withdrawn.

Claims 92-94 and 96 are further distinguishable over the proposed combination for at least the following additional reasons.

Claim 92 indirectly depends from claim 88 and requires the first substrate to be a film and further requires contacting the exposed surface of the continuous film with a second substrate that comprises foil. It is undisputed that neither Bayer et al. nor Werenicz et al. teach or suggest the method of claim 92. In particular, neither Bayer et al. nor Werenicz et al. nor any combination thereof teaches or suggests transferring a hot melt adhesive that includes thermoplastic polymer and tackifying resin to a film substrate.

Mainstone does not cure the deficiencies of Bayer et al. and Werenicz et al. Nothing in Mainstone teaches or suggests using a formulated hot melt adhesive that includes thermoplastic polymer and tackifying resin in a construction that includes a film substrate and a foil substrate. Rather, Mainstone discloses using neat polymer or copolymers as the adhesive tie layer in a sandwich lamination that includes three layers. Accordingly, the skilled artisan would have no reason to employ a formulated hot melt adhesive that includes thermoplastic polymer and tackifying resin in a method that

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produces a construction that includes a film substrate, an adhesive and a foil substrate. Applicants submit, therefore, that the rejection of claim 92 under 35 U.S.C. § 103 over Bayer, Jr. et al. in view of Werenicz et al. and further in view of Mainstone is further unwarranted for at least this additional reason and request that it be withdrawn.

Claim 93 indirectly depends from claim 88 and requires the first substrate to be a foil and further requires contacting the exposed surface of the continuous film with a second substrate that comprises film. It is undisputed that neither Bayer et al. nor Werenicz et al. teach or suggest the method of claim 96. In particular, neither Bayer et al. nor Werenicz et al. nor any combination thereof teaches or suggests transferring a continuous film that includes a hot melt adhesive that includes thermoplastic polymer and tackifying resin to a foil substrate.

Mainstone does not cure the deficiencies of Bayer et al. and Werenicz et al. Nothing in Mainstone teaches or suggests using a formulated hot melt adhesive that includes thermoplastic polymer and tackifying resin in a construction that includes a foil substrate and a film substrate. Rather, Mainstone discloses using neat polymer or copolymers as the adhesive tie layer in a sandwich lamination that includes three layers. Accordingly, the skilled artisan would have no reason to employ a formulated hot melt adhesive that includes thermoplastic polymer and tackifying resin in a method that produces a construction that includes a foil substrate, an adhesive and a film substrate. Applicants submit, therefore, that the rejection of claim 93 under 35 U.S.C. § 103 over Bayer, Jr. et al. in view of Werenicz et al. and further in view of Mainstone is further unwarranted for at least this additional reason and request that it be withdrawn.

Claim 96 indirectly depends from claim 88 and requires the first substrate to comprise film and further requires contacting the exposed surface of the continuous film with a second substrate that comprises paper. It is undisputed that neither Bayer et al. nor Werenicz et al. teach or suggest the method of claim 96. In particular, neither Bayer et al. nor Werenicz et al. nor any combination thereof teaches or suggests transferring a continuous film that includes a hot melt adhesive that includes thermoplastic polymer and tackifying resin to a film substrate.

Mainstone does not cure the deficiencies of Bayer et al. and Werenicz et al. Nothing in Mainstone teaches or suggests using a formulated hot melt adhesive that

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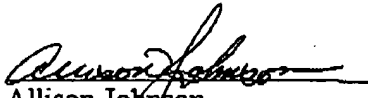
includes thermoplastic polymer and tackifying resin in a construction that includes a film substrate and paper substrate. Rather, Mainstone discloses using neat polymer or copolymers as the adhesive tie layer in a sandwich lamination that includes three layers. Accordingly, the skilled artisan would have no reason to employ a formulated hot melt adhesive that includes thermoplastic polymer and tackifying resin in a method that includes transferring a film of the adhesive to a film substrate and then contacting the adhesive film with a paper substrate. Applicants submit, therefore, that the rejection of claim 96 under 35 U.S.C. § 103 over Bayer, Jr. et al. in view of Werenicz et al. and further in view of Mainstone is further unwarranted for at least this additional reason and request that it be withdrawn.

Applicants submit that the claims now pending in the application are in condition for allowance and such action is respectfully requested. The Examiner is invited to telephone the undersigned should a teleconference interview facilitate prosecution of this application.

Please charge any additional fees owing or credit any over payments made to Deposit Account No. 06-2241.

Respectfully submitted,

Date: August 15, 2003

  
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